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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
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10/563,356

12/21/2006

Kazuhiro Kobayashi

KOBAYASHI22

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1444 7590 09/10/2008
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EXAMINER

ROBINSON, RYAN C

ART UNIT

PAPER NUMBER

2615

MAIL DATE

DELIVERY MODE

09/10/2008

PAPER

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Office Action Summary	Application No. 10/563,356	Applicant(s) KOBAYASHI ET AL.	
	Examiner RYAN C. ROBINSON	Art Unit 2615	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 21 December 2006.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-13 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-10 and 12 is/are rejected.
- 7) ☐ Claim(s) 11 and 13 is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 03 January 2006 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413) |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | Paper No(s)/Mail Date. _____ |
| 3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08) | 5) <input type="checkbox"/> Notice of Informal Patent Application |
| Paper No(s)/Mail Date <u>1/3/2006</u> . | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

1. The examiner acknowledges the preliminary amendments filed on 12/21/2006.
2. Claims 5-6 have been amended on 12/21/2006.
3. Claims 7-13 have been added on 12/21/2006.

Claim Rejections - 35 USC § 112

4. The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.
5. Claim 3 is rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention. Claim 3 recites the limitation "the flat top surface of the beam holding part" in lines 3-5. There is no suggestion, explicit or implicit, that the shape of the beam holding part is flat in claim 3, or in parent claims 1-2. There is insufficient antecedent basis for this limitation in the claim.

Claim Rejections - 35 USC § 103

6. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

Art Unit: 2614

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

7. Claims 1-2, 4-10 and 12 are rejected under 35 U.S.C. 103(a) as being unpatentable over Bank et al., U.S. Publication No 2003/0059069, published on 3/27/2003.

8. As to claim 1, Bank teaches a panel type speaker (Fig. 5) comprising: an exciter including bimorph type beams (43, 51) which are made of a piezoelectric material (Para. 0061, lines 1-2) and in each of which a flexural oscillation is excited, and a beam holding part for holding the beams (56); and a diaphragm (54) which is attached to the exciter to generate a flexural oscillation based on oscillation transmitted from the exciter and serves as a transparent protective plate for a display (Para. 0040, lines 6-7). The beam holding part (56) is fixed to a surface of the diaphragm so that the exciter is held on the diaphragm.

It is noted that Bank does not teach the exact dimensions of the bottom surface of the beam holding part of the exciter. However Bank does teach that the dimension beam holding part should be selected according to the desired acoustic characteristic. Therefore one of ordinary skill in the art would have selected a proper dimension of the bottom surface of the beam holding part for the desired acoustic characteristic, including an area which is greater than or equal to one-fourth of an area of the largest beam of the beams.

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9. As to claim 2, Bank teaches an acoustic characteristic regulating mechanism (Fig. 6, element 74) having a resonance point in a frequency range of the speaker is formed on a top surface of the beam holding part (78) of the exciter.
10. As to claim 4, Bank teaches a plated spring (Fig. 6, element 74) which is fixed to the top surface of the beam holding part (78) of the exciter and extending along a longitudinal direction of the beams.
11. As to claim 5, Bank teaches that the beams of the exciter (43, 51) comprise two beams having different lengths, and characterized in that an elastic spacer (48) is fixed to one beam to preserve a certain interval or more between the beams.
12. As to claim 6, Bank teaches that the beam holding part is extended in a longitudinal direction of the beams of the exciter (Fig. 11, element 148), contains the beams (143, 144) in the beam holding part, and has a box-shaped structure.
13. As to claim 7, Bank teaches that the beam holding part is extended in a longitudinal direction of the beams of the exciter (Fig. 11, element 148), contains the beams (143, 144) in the beam holding part, and has a box-shaped structure.

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14. As to claim 8, Bank teaches that the beams of the exciter (43, 51) comprise two beams having different lengths, and characterized in that an elastic spacer (48) is fixed to one beam to preserve a certain interval or more between the beams.

15. As to claim 9, Bank teaches that the beam holding part is extended in a longitudinal direction of the beams of the exciter (Fig. 11, element 148), contains the beams (143, 144) in the beam holding part, and has a box-shaped structure.

16. As to claim 10, Bank teaches that the beams of the exciter (43, 51) comprise two beams having different lengths, and characterized in that an elastic spacer (48) is fixed to one beam to preserve a certain interval or more between the beams.

17. As to claim 12, Bank teaches that the beam holding part is extended in a longitudinal direction of the beams of the exciter (Fig. 11, element 148), contains the beams (143, 144) in the beam holding part, and has a box-shaped structure.

Allowable Subject Matter

18. Claims 11 and 13 are objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.

Conclusion

The prior art made of record

- a. US Publication Number 2003/0059069

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Ryan C. Robinson whose telephone number is (571) 270-3956. The examiner can normally be reached on Monday through Friday from 9 am to 5 pm.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Suhan Ni, can be reached on (571) 272-7505. The fax phone number for the organization where this application or proceeding is assigned is (571) 273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

Ryan Robinson

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/Suhan Ni/

Primary Examiner, Art Unit 2614